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MEMBERSHIP OF THE WORKING PARTY

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Report of the Working Party on a Welsh Agricultural College

INTRODUCTION

To the Right Honourable John Hare, O.B.E., M.P.,

Minister of Agriculture, Fisheries and Food.

1. We were appointed in December, 1958:

"To consider in detail the financial, organisational, and any other arrangements which would be appropriate if a Welsh agricultural college were to be established at Aberystwyth, with particular reference to costs and any new factors that may have arisen since the Seaborne Davies Committee's report* was drawn up."

2. The main recommendation of the Seaborne Davies Committee was that a National Agricultural College of Wales affiliated to the University of Wales and sponsored by the Welsh Joint Education Committee should be established at Aberystwyth for the provision of agriculture and dairy diploma courses with an annual intake into each of 20 students. On the assumption that the college would not need its own hostel and that use might be made of the dairy department of the University College (U.C.W.), the Committee estimated that the minimum capital outlay would be not less than £50,350 which they recommended should be met by the Ministry of Agriculture. They envisaged that the recurring expenditure, which they put at £13,500 annually, would be met partly by fees differentiated in favour of Welsh residents and partly by Welsh Local Education Authorities with a 60 per cent. grant from the Ministry.

3. In the light of the enquiries we have made we have concluded that the assumptions mentioned in the preceding paragraph can no longer be made. In addition a number of new factors has arisen affecting substantially not only the estimated cost of the project, but also the proposed method of paying for it. Prominent among these are the interest of the Forestry Commission in the possibility of associating their Forester Training School in Wales with the proposed college and the incorporation of a wide range of percentage grants for education in the General Grant system. We have examined these and other matters in the course of our meetings.

4. We remitted to a small panel drawn from our membership, under the Chairmanship of Dr. R. Phillips, the detailed re-examination of the costs involved. To this panel were co-opted Mr. John Lewis, Director of U.C.W.'s Dairy Department and Mr. L. J. Williams, the Ministry's Farm Buildings Advisory Officer for Wales. For their expert advice we are most grateful.

5. We now submit our report.

AFFILIATION WITH UNIVERSITY OF WALES

6. One of the Seaborne Davies Committee's main recommendations was that the proposed college should be affiliated to the University of Wales.

* Report of the Committee appointed to consider Agriculture and Dairy Diploma Courses in Wales. H.M.S.O., 1957.

In urging this the Committee considered that affiliation would confer the following important advantages:

- (a) *The preservation of high standards*: They envisaged that entry qualifications, the appointment of teaching staff and examining standards would be subject to University supervision and thought that much would be gained if the University could contribute its experience to the syllabus and its name to the diploma.
- (b) *The benefits that would be enjoyed by the students*: They were thinking particularly of the benefits that come from contact with a university atmosphere and from participation in student activities whether cultural, social or sporting.
- (c) *Pooling of resources*: Under this head they had particularly in mind the possibility of the college sharing the facilities of the U.C.W.'s dairy department. (We deal with this in a later section of our report.)

7. Before the Working Party was set up, the Academic Board and the Council of the University of Wales had indicated that the proposal for formal affiliation was unacceptable mainly on the grounds that the structure and level of the courses at an agricultural college would be different from, and lower than, those at a university. We were, however, pleased to learn in the course of our deliberations that there was still considerable scope for a looser form of association both with the University and with U.C.W. Thus, the University would be willing to appoint representatives to the Governing Body of the college. U.C.W., for its part, would be prepared

- (a) to be represented on the Governing Body;
- (b) to allow members of its staff to act as external examiners and give advice and help to the staff of an agricultural college in their experimental projects;
- (c) to permit members of the agricultural college's staff to participate in the supervision of research by U.C.W. students for higher degrees, subject to the students remaining under the direction of a member of U.C.W.'s staff; (an arrangement on these lines would be of great value to the staff, for involvement in research problems and projects could not fail to add interest and zest to their teaching work).

Although integration of courses between the two establishments would be impracticable, in exceptional circumstances students from the agricultural college might be admitted to special University lectures. We were particularly glad to learn that, subject to the approval of the Student Body, opportunities could be provided for agricultural college students to participate in the extra-curricular activities covered by the Amalgamation Fee paid by U.C.W. students. This comprises a wide range of activities including membership of the Students' Union and Refectory, Debating Union, and all recognised societies and clubs.

8. In view of the importance which the Seaborne Davies Committee—rightly in our view—attached to the question of affiliation we examined closely whether an association on the lines indicated above would satisfy in essence the main considerations which the Committee had in mind. We are satisfied that it would. In particular the presence of University representatives on the

Governing Body would add invaluable stature and weight to the proposed college, particularly in the minds of Welshmen, and would satisfy the bulk of the considerations referred to at (a) in paragraph 6. We have been heartened by the interest which the University and U.C.W. authorities have shown in the proposed college, an interest which is reflected in the fact that the University has been represented on the Working Party by its Registrar and U.C.W. by its Principal.

RELATIONSHIP WITH WELSH LOCAL EDUCATION AUTHORITIES

9. The Seaborne Davies Committee considered that a college would benefit immensely if it could be closely identified with all Welsh Local Education Authorities through the medium of the Welsh Joint Education Committee (W.J.E.C.). They recommended that the W.J.E.C. should be represented on the Governing Body of the college and they envisaged that L.E.A.s in Wales would pay grants towards any deficiency in annual running expenses on a basis of apportionment arranged between Authorities by the W.J.E.C., such contributions attracting 60 per cent. grant aid from the Ministry of Agriculture. It was felt that an arrangement on these lines would give Welsh L.E.A.s added grounds for encouraging suitable students in their areas to apply for training at the college.

10. We share the view of the Committee that the participation of Welsh L.E.A.s through the W.J.E.C. is vital to the successful establishment and running of a national college in Wales. We were therefore glad to learn that before the Working Party was set up the W.J.E.C. had indicated its whole-hearted support for the recommendation that a college should be established at Aberystwyth and had expressed the hope that it should include forestry courses. This initial reaction has been reiterated and reinforced by the two representatives of the W.J.E.C. on the Working Party. Later on in our report we make recommendations for the W.J.E.C. to be represented on the Governing Body and for Welsh L.E.A.s to contribute to the cost of running a college. At this stage we confine ourselves to emphasising that in our view the W.J.E.C. has an important part to play in the project; from what we have been told by the W.J.E.C.'s two representatives, we believe that Welsh L.E.A.s would be prepared to shoulder the responsibilities which it is suggested they should undertake.

FORESTRY COURSE

11. The Seaborne Davies Committee, although not feeling justified in extending their detailed enquiries to take in forestry, nevertheless saw "every advantage in any forestry diploma course in Wales being housed alongside the new agricultural course." Two-year forestry courses in Wales are now provided at the Forestry Commission's school at Capel Curig in Caernarvonshire. This school, which for the most part trains men for service with the Commission as foresters, has been established for some years, but the accommodation has become inadequate and costly to maintain. The Commissioners

have therefore decided that new quarters must be found in Wales. At the outset of our deliberations we were informed of this and of the Commission's deep interest in the possibility of associating their school in some way with the proposed agricultural college.

12. In the past the activities of the forester have been looked at with some suspicion in Wales. While the relations between the Forestry Commission and the agricultural community of the Principality are significantly better today we are convinced that a close association between agricultural and forestry students in Wales would be a major step towards better understanding between the two industries and would thereby help to promote the co-operation and integration which is, we understand, one of the keystones of Government policy for the rural areas of Wales. As will emerge later in our report such an association has also significant implications for the size, location, constitution and economics of the proposed college. In view of this, and encouraged by the co-operation of the Forestry Commission, we decided that one of our first tasks was to examine carefully the possibility of combining under one roof and one command a forestry school and an agricultural college. Our examination has led us to believe that it is possible to achieve this by incorporating alongside the agricultural and dairy departments of the college a forestry school catering mainly for the Commission's needs.

13. The educational level of the Forestry Commission certificate course, with its necessary element of practical work, lies somewhere between diploma and farm institute standard. While diplomas in forestry are awarded by certain bodies, the Commission do not regard the training needed to qualify for them as a substitute for the curriculum of the Forester Training Schools which has been carefully designed on the basis of long experience to meet their particular requirements. The Commission understandably see no virtue in changing the emphasis or standard of their course merely to fit in with the pattern of agriculture and dairy diploma courses envisaged at a Welsh college. Forestry students trained in Wales are liable to serve anywhere in the United Kingdom and it would obviously create difficulties if the training provided in the Principality differed from that given at the Forester Training Schools in England and Scotland. We are aware that there are objections of a general nature to an establishment of the sort we have in mind teaching at two different levels. We do not, however, attach as much weight to them as we should if the same subjects were being taught at different levels. And we feel that such objections are outweighed by the far-reaching advantages that would result from forestry and agricultural students rubbing shoulders during their period of training and sharing the same residential and social facilities.

14. In our view the syllabus for the forestry course must be drawn up by the Forestry Commission who alone can ensure from their long experience that it meets the particular requirements of the service in which the large majority of the students will eventually find employment. Likewise the day-to-day running of the forestry department which we propose for the college would be in the hands of the head of the forestry department who would be an officer seconded from the Commission. We accept, too, that the Commission should retain full rights of inspection and supervision of teaching standards and methods and in addition be responsible for the setting and marking of the certi-

ficate examination. The Commission would subsequently issue the certificate on the results of that examination.

15. As far as staffing is concerned, the Forestry Commission are prepared to nominate officers for secondment to the forestry department of the college subject to formal appointment by the Governing Body. These officers would be seconded for a limited period only—probably from three to five years. We hope, however, that five years would be regarded as a suitable minimum for the appointment of the head of the forestry department. We understand that there should be scope for some interchange of staff between the forestry department and the agricultural and dairy departments. For example, forestry students might receive instruction in botany from the lecturer in biology attached to the agricultural department. And agricultural students might attend lectures by a member of the forestry department on the cultivation and use of shelter belts, hedgerow and farm timber, an aspect on which the Seaborne Davies Committee rightly laid emphasis. Apart from this the course of instruction given in the forestry department would not normally overlap with that of the agricultural and dairy departments.

16. The terms of the Forester Training Schools are longer than those of Agricultural Colleges and the Commission inform us that it would not be possible to make the terms of the forestry department coincide exactly with those of the other two departments. We accept that this is inevitable but we do not consider that it should give rise to serious difficulties.

17. We have considered the question of the admission of students to the forestry course. In our view the Forestry Commission should be responsible for the selection, and nomination for entry to the college, of all forestry students. It would follow that those nominated by the Commission would be accepted by the Principal as a matter of course for admission. Likewise we think that the Commission should retain the right of determining the suitability of such students for continuing their course during the two-year training period.

18. The Commission have advised us that an intake of 25 forestry students each year could be expected. This figure makes no allowance for private students or those nominated by overseas governments. The Commission think that there are likely to be very few students in these categories; should any come forward with good claims to be trained at Aberystwyth rather than elsewhere (e.g. because they are Welsh or have links with Wales) the Commission would be prepared to make room for them in the college by reducing the number of new entrants nominated by the Commission for Aberystwyth in any one year.

19. Understandably the Forestry Commission, who would be paying entirely for the vast majority of the forestry students, wish to be satisfied that their interests are not overlooked so far as disciplinary action in respect of such students is concerned. We are glad, however, to report that the Commission accept that the Principal must be master in his own house and that normally he would be the arbiter on matters of domestic discipline. We assume that in practice before taking disciplinary action in respect of forestry students the Principal would have been in close touch with the head of the forestry department. Should serious breaches of discipline occur the Commission have asked that their Chief Education Officer should have the right of direct consultation with the Principal.

20. We believe that the interests of the Commission on the one hand and of the Principal on the other can be adequately safeguarded on these lines. But if an issue were to arise—whether of a disciplinary or of some other nature—which cannot be settled by the Principal after discussion with the head of the forestry department, or, in exceptional cases, the Commission's Chief Education Officer, the Forestry Commission accept that the final arbiter should be the Governing Body of the college to whom the Principal would be responsible and on which we recommend that the Commission should be represented.

21. Our detailed discussions with the Forestry Commission's representatives on the Working Party have reinforced our conviction that nothing but good could come from bringing the two bodies of students together. We strongly recommend, therefore, that the college should have its own department of forestry (on an equal footing with the agricultural and dairy departments), staffed with officers seconded from the Commission and providing a certificate course in accordance with a syllabus approved by the Commission.

22. The financial implications of incorporating a forestry department in the college, the scope for sharing certain facilities and the question of Forestry Commission representation on the Governing Body are dealt with in later sections of our report.

THE COLLEGE FARM

23. In view of its effect on costs and its bearing on the location of a college, we considered carefully whether a college at Aberystwyth should have its own farm. All the English colleges have farms—so, too, have the Welsh farm institutes—and there is no doubt in our minds that the Seaborne Davies Committee were right in recommending that a Welsh college should have one. The arguments in favour of this have been aired on a number of occasions in recent years. It is perhaps sufficient for us to refer to the Report of the Committee on Higher Agricultural Education in England and Wales, 1946 (the Loveday Report, Cmd. 6728), which, in its section on diploma courses, states, *inter alia*:—

“Formal instruction in the classroom should throughout be closely co-ordinated with farm classes, discussions and demonstrations . . . for this purpose the training institution must possess a well-equipped farm that is farmed on modern lines at a high level of efficiency and is easily accessible to students and staff” (paragraph 40).

24. We are convinced that the absence of a farm of its own would substantially detract from the prestige of the college and would tend to lower its standing among farmers, the teaching profession, and parents of potential students. Without a farm the power of the college to attract students would be seriously affected.

25. We have in mind particularly the fact that the college farm would be used not only for formal teaching purposes but would also be required for experimental work by members of the staff and for personal study by the

students in their own time. As regards work by members of the staff we quote again from the Loveday Report:—

“ . . . no teaching above the school level can be vivid and inspiring if it is based on lecture notes . . . there is a wide range of opportunity for original observation and experiment. For the sake of effective teaching we hope that the teachers of husbandry will be encouraged to conduct such investigations” (paragraph 30).

Without a farm, which would serve as a laboratory for the staff, we doubt whether men and women of the high calibre required would be attracted to the college.

26. In drawing up our estimates of cost we have assumed that a holding of 150 to 200 acres would be needed. But much would depend on what is available at the time. We think that rather than adapt existing fixed equipment—some of which might be out of date or otherwise unsuitable—for the purposes of the college's farm it would be preferable, although not essential, to acquire a clean site and erect a new set of buildings on it. Assuming this is done, we have been advised by our costs panel to allow a figure of £35,000 for purchase of land, new building, provision of live and dead stock and working capital.

27. We are all agreed that the prime function of the farm should be educational and in our view it would be impracticable to attempt to run it on purely commercial lines. We assume, though, in preparing our estimates of running costs that, taking one year with another, the farm accounts would at least break even. The experience of English colleges suggests that this is a reasonable assumption.

U.C.W.'s DAIRY DEPARTMENT

28. In paragraph 175 of their report the Seaborne Davies Committee envisaged that some of the facilities of the U.C.W.'s dairy department might be made available for instructing dairy diploma students at an agricultural college. We have, however, been informed by the U.C.W. authorities that no definite assurance can be given that these facilities could be shared by the college. Although the transfer of dairy diploma students to an agricultural college would make an appreciable difference in the number of students using the existing facilities, U.C.W. would still need to use their dairy department for higher level teaching and investigational work. In addition the content of the Rural Science degree is under review and it is thought likely that as a result dairy science will be given a more prominent place in the degree syllabus. In view of this we were advised by U.C.W. to proceed on the assumption that an agricultural college would need its own dairy department. This has obvious implications both for the capital cost of the proposed college and for its location.

LOCATION OF COLLEGE

29. Our recommendation that a college should include a forestry department, our confirmation of the Seaborne Davies Committee's view that it should have its own farm, and the advice we have been given by U.C.W. that we should

assume it would require its own dairy department, all have a bearing on the location of the college. There is, however, a further factor which in our view is even more important than the rest and that is the desirability of siting it near to U.C.W. We believe that a unique feature of a Welsh college established at Aberystwyth and one which could prove to be a potent attraction to students not only from Wales but also from England and abroad would be the fact that its students would enjoy the benefit of a university atmosphere and of participating in the extra-curricular activities of undergraduates.

30. In the light of the factors referred to above, we should like, ideally, to see the college situated (a) on a farm, (b) with a Forestry Commission plantation on one side and (c) with U.C.W. on the other. This is an impossibility, if only because the nearest forestry plantation suitable for practical instruction is some eight miles from Aberystwyth. It is, however, normal for students at the Forester Training Schools to travel considerable distances for some of their practical training and we have been assured by the Forestry Commission that they would not regard a minimum distance of eight miles to any practicable working site as an insuperable disadvantage. In any case the forestry students' outdoor studies would not be restricted to a particular forest even if there were one adjacent to the college.

31. There is a body of opinion which considers that an agricultural college and its farm should form one physical unit, primarily on the grounds that much advantage accrues from the students absorbing the atmosphere of the farm at all times during the day. We think there is much to be said for this, but if, as in practice would most probably be the case, a choice has to be made we are, for the reasons indicated in paragraph 29, convinced that top priority should be given to siting the college as near as possible to U.C.W. An ideal location in our view would be within the ambit of the Penglais area of Aberystwyth, parts of which are already devoted to halls of residence and science departments of U.C.W. Having said this we would hope that the farm would be as close as possible to the college proper. Later in our report we suggest that the dairy department and certain other buildings used for teaching purposes should be sited on the farm rather than incorporated in the main college block.

DEMAND FOR COURSES

32. Before proceeding to assess the cost of the proposed college we considered it necessary to satisfy ourselves as to the likely number of students for which it would have to cater. While we have not attempted an exhaustive survey of the basis on which the Seaborne Davies Committee made their estimate that the college should cater for 80 students, our examination of data casting light on the position today tends to confirm the Committee's estimate.

Dairy Diploma Course

33. During the four years 1956-59, 83 new candidates were admitted to U.C.W.'s dairy diploma course; 64 students completed it. The average annual figures—21 and 16—are almost identical to the average derived

from the figures, 119 and 95, quoted in the Seaborne Davies Committee's Report for the six years 1950-55. Unless circumstances affecting demand change, we see no reason to dissent from the Committee's view that sufficient resources should be provided to cope with an annual intake to a dairy diploma course of at least 20 students. We have little doubt that the Welsh tradition in educational matters and the cachet of Aberystwyth would ensure that a full-time diploma course at the college would exercise a strong attraction on the potential student and his parents.

34. We are advised that the increased emphasis on dairying proposed for U.C.W.'s Rural Science degree course (we refer to this in paragraph 28) would be unlikely to have any effect on the intake into the college as the courses would cater for different types of student.

Agriculture Diploma Course

35. The Committee's estimate of demand for agriculture diploma courses was based largely on the belief that most Welsh students studying for their diploma at colleges outside Wales, together with a substantial proportion of Welsh farm institute students of diploma potential, would have applied for admission to a Welsh college had there been one. We have no reason to think that the number of Welsh students at agricultural colleges has diminished and we understand from H.M. Inspectors of Schools in Wales that there has been no falling off in farm institute students of diploma potential. Again, although the number of vacancies at Welsh farm institutes in 1956 did not, in the Seaborne Davies Committee's view, reflect a decline in Welsh demand for agricultural education and the contributory causes would not necessarily affect recruitment of diploma students, it is worth noting that since 1956 the number of full-time students at Welsh farm institutes has increased from 174 to 217. As already indicated we support the Committee's assessment of the pull that a college situated in Aberystwyth would exert on potential students and we accept that an annual intake of 20 students each year could reasonably be expected.

36. We have noted the Committee's recommendation that the provision for agriculture diploma students should be on an experimental basis in the first instance. We think it would be very undesirable if this were taken to mean that temporary accommodation or makeshift facilities might be utilised in the first few years. We believe that if it is decided to establish a college it should be given every reasonable chance of proving itself; with this in mind we think it would be wrong in principle if a Welsh college were to start off with facilities significantly inferior to those offered by existing colleges.

Forestry Course

37. As stated in paragraph 18, with very few exceptions the students taking the forestry course would be intending to enter the Forestry Commission's service. The number of such students must therefore be related to the annual number required by the Commission for their Assistant Forester posts. We have been advised to plan on the assumption that there would be an intake of 25 each year.

General

38. The Seaborne Davies Committee estimated that the minimum capital cost of a college on the lines proposed by them would be £50,350, including a farm, and that annual running expenses would be £13,500. The Committee emphasised that their estimate was less an overall estimate for all possible contingencies than an indication of minimum costs. Since 1956 costs have gone up; but, more important, the new factors which have arisen have led us to think in terms of a residential college substantially different in size, equipment and facilities from that which the Committee had in mind. This has necessitated a substantial revision of the Committee's estimates. We have been particularly anxious to ensure that our revised estimates are as realistic as possible, and we have therefore felt it necessary to examine in detail the type of building, equipment, staffing and other facilities which would be required in the light of the changed circumstances. In doing this we have tried to keep costs down to the minimum; we have defined "the minimum" as meaning that which is necessary to give the college a good chance of establishing itself successfully in the circumstances prevailing today. On the basis of our examination we estimate that the capital cost of a college, including *inter alia* a forestry department, dairy unit, farm, hostel and a Principal's house, would be £343,260 and the annual running cost £37,670. Of these sums £223,170 and £31,905 respectively are attributable to the diploma courses and the remaining £120,090 and £5,765 to the forestry course. These figures do not represent the full cost to the Forestry Commission of the forestry course. On the capital side the cost of the movable furniture and equipment, which would be provided by the Commission from existing resources, has not been included. The figure for running costs excludes expenditure paid direct by the Commission, e.g. staff salaries and replacement of furniture and equipment used solely by the forestry department.

39. Details of these estimates are given in the Appendices and in the paragraphs that follow.

Capital Expenditure

40. The Seaborne Davies Committee's estimates, for what were at the time good reasons, did not include four substantial items of capital expenditure which in the changed circumstances of today we have felt it necessary to include, viz., a students' hostel, a dairy unit, a house for the Principal and a forestry school.

41. *Hostel.* On the evidence available in 1956 the Committee took the view that the students could live in lodgings in Aberystwyth or alternatively that boarding houses could be converted into hostels. We understand from the U.C.W. authorities that existing student accommodation in Aberystwyth is stretched to the limit and that the greatest difficulty is being experienced in coping with the "bulge" in intake which is likely to continue for some years; in this connection it is worth noting that student numbers have increased since 1955-56 from 1,138 to 1,480. We also understand that applications by U.C.W. to convert boarding houses into hostels have been strongly resisted locally on the grounds that the town as a holiday resort has a pressing need for boarding houses. We do not suggest that an agricultural college should attempt to compete with U.C.W. for what little accommodation may be available and we see no

practicable alternative to the provision of a new hostel. We estimate that a hostel providing 130 study bedrooms and dining facilities for 150 would cost about £146,000.

42. *Dairy department.* As stated in paragraph 28 the Seaborne Davies Committee hoped that some of the resources of U.C.W.'s dairy department would be available for diploma instruction at the new college. In view, however, of the advice we have been given by U.C.W. we have made provision for the college to have its own dairy unit at a cost of £26,100.

43. *Principal's house.* Bearing in mind the type of college we envisage (e.g. it would be residential) we consider that a house for the Principal, situated in the grounds of the college, would be essential in the interests of efficient administration. We have therefore included in our estimates the sum of £5,000 to cover this.

44. *Forestry block.* Finally, the Committee's estimate naturally made no provision for a forestry department. We have estimated that the contribution by the Forestry Commission to capital costs, in addition to their share of the cost of the hostel, would be £63,935.

45. *Teaching unit.* Before assessing costs we first considered various ways of arranging the teaching unit with a view to choosing one which would avoid unnecessary expenditure and would at the same time best suit the needs of a Welsh college. Particulars of the teaching accommodation which we recommend, together with an estimate of costs, are set out in Appendix B.

46. While the main teaching block would be located with the hostel on the college site, we think that the essentially practical work of the dairy department, together with the workshop and demonstration rooms which would be used for instruction in farm mechanisation and equipment and training in repair and maintenance work, should be sited on the farm. Not only is it necessary to teach the use of machines and other equipment in their proper setting but much of the machinery would be in actual use on the farm. As for the dairy department, close proximity to the source of production appears to us both logical and educationally valuable even though separation from the laboratories may cause some inconvenience at times. We are satisfied that the implementation of these suggestions would enable a more economical type of construction to be used, would avoid duplication of buildings and equipment at farm and college and would result in some saving in expenditure.

47. The items of equipment required for the dairy department and the use to be made of them, based on the experience of U.C.W.'s dairy department, are listed in Appendix G. Particulars of the accommodation and equipment needed for instruction in farm mechanisation etc. are given in Appendix H.

48. If, as we suggest, the main teaching unit and the hostel are in close proximity to each other no dining accommodation or students' common rooms would be required in the teaching block. We have, however, made provision for a students' common room on the farm although we envisage that all main meals would be taken at the hostel.

49. Our estimates of the capital cost of the proposed college have been based, where appropriate, on the cost limits currently adopted by the Ministry of Education in respect of new colleges of further education*; we should like to record our gratitude for the assistance which we have received from that Department.

Annual Running Costs

50. *Staff salaries.* Staff salaries are the main item of recurring expenditure and (excluding staff seconded from the Forestry Commission who would continue to be paid direct by the Commission) account for about two-thirds of the £37,670 which we estimate it would cost annually to maintain the college. After careful consideration, including a visit by some members of the Working Party to Seale-Hayne Agricultural College (to whose Principal we are indebted for a wealth of most helpful information), we doubt whether, in a college established on the lines we have suggested, the number of teaching staff envisaged in the Seaborne Davies Committee's Report—five full-time and three part-time—would be enough to give effective teaching for the dairy and agriculture diploma courses. For students taking these courses we calculate that a teaching staff of eleven, including the Principal (who in our view should take a small but active part in the actual teaching), together with two part-time lecturers would be needed to enable the college to operate efficiently. Further staff seconded from the Forestry Commission would be required for the forestry department. We are particularly grateful to our assessor, Dr. T. I. Davies, for his invaluable advice on this aspect of our enquiries.

51. We understand that there is a move afoot to achieve greater uniformity in salary scales for lecturers at agricultural colleges in England by adopting over a period the Burnham scales for teachers in technical colleges. The estimates in Appendix E are therefore based on those scales. The Principal's salary has, in agreement with the Seaborne Davies Committee's recommendation, been assessed at professorial level.

52. In addition to the teaching staff we have estimated that six technical assistants, three laboratory assistants and a fitter would be required for the diploma courses. We consider that an administrative staff of three, and a caretaker, should be sufficient for the college as a whole.

53. *Other running costs.* The other main costs of a recurring nature relate to the teaching unit, office accommodation, the hostel and the farm. In the experience of U.C.W. the cost of running students' hostels can be met by the students' residence fees (about £140 per annum at U.C.W.) together with receipts from vacation lettings. We are informed that the demand for such lettings in Aberystwyth cannot be fully met by U.C.W. and it seems reasonable to assume that the proposed college would be able without too much difficulty to build up a regular clientele for this purpose. For the purposes of our estimates we have assumed, therefore, that the hostel, like the farm (paragraph 27), would break even taking one year with another (paragraph 73 also refers).

* The cost limits used in this Report are those set out in the Ministry of Education's Building Bulletin No. 5 (September, 1959, edition). We understand there will be an upward revision of these limits in the near future.

FINANCING A COLLEGE

54. A substantial part of the costs of establishing and running a college on the lines we have outlined would be incurred on the forestry course. As we explain in paragraph 68, the Forestry Commission have indicated their willingness to pay for the whole of the cost of providing this course. In paragraphs 69-75 we set out an apportionment, suggested by the Commission, of their share of the estimated costs and indicate how it has been calculated. Paragraphs 55-67 examine the question of how to pay for the cost of providing a college for diploma courses in agriculture and dairying only.

Method in operation for Agricultural Colleges in England

55. The entire cost of approved non-recurring expenditure at the English agricultural colleges (apart from the Royal Agricultural College) is now met by the Ministry of Agriculture, Fisheries and Food, subject to an arrangement whereby half the expected farm profit is set off against the Ministry's capital grant.

56. Other approved expenditure at these colleges, where not covered by fees and other sources of income, is met from the Ministry of Agriculture's deficiency grants determined on a quinquennial basis.

Capital Expenditure—Diploma Courses

57. For capital expenditure the Seaborne Davies Committee recommended that the method now employed on approved capital costs for grant-aided English colleges should be applied to a Welsh college, i.e. such costs should be met by a 100 per cent. grant from the Ministry. We have considered whether the initial capital required for the agriculture and dairy diploma courses (£223,170) might be provided in part from non-governmental sources. Our examination of the position has led us to conclude that there is no practicable alternative to a 100 per cent. grant from the Ministry and we endorse the recommendation of the Committee.

Recurring Expenditure—Diploma Courses

58. On the assumptions made in paragraph 204 of their Report the Seaborne Davies Committee envisaged that the College's estimated annual expenditure of £13,500 would be met from income derived as follows:

Tuition Fee—60 Welsh students at £50	}	...	...	£5,000
20 others at £100				
L.E.A. contributions to the College	...	...	...	£8,500
				<hr/> £13,500

The Committee recommended that the L.E.A. contributions should qualify for 60 per cent. grant, i.e. £5,100, from the Ministry of Agriculture, leaving £3,400 net to be apportioned among Welsh L.E.A.s; assuming, as the Committee hoped, that all L.E.A.s would participate, this would work out at an average of £200 each. The Committee regarded this contribution "as a very reasonable

investment to secure a special Welsh status for the college and favourable treatment for its Welsh resident students; it would be consistent with the major participation of the L.E.A.s in administering the college, and would give them added grounds for encouraging suitable students in their areas to apply for training".

59. Two major developments since the Report appeared have materially affected these proposals. First, on the basis we have proposed for the college, the estimated annual cost of running the college has increased very considerably, and, secondly, since 1st April, 1959, grants to local authorities for education have been merged with the General Grant. We have therefore looked afresh at the sources of income available to the college and at possible ways of bridging the gap between income and expenditure.

60. *Tuition fee.* The Seaborne Davies Committee envisaged that students resident in Wales should pay a tuition fee of £50 per session and that other students should be charged £100. These two figures were broadly comparable with the fees then being charged at U.C.W. and at English diploma centres respectively. In making this recommendation the Committee had in mind the possibility that the success of the college might be prejudiced if it was obliged to charge Welsh diploma students appreciably more than the fee payable by dairy diploma students at U.C.W.

61. We believe that this is a factor which should not be dismissed lightly and we have given it much thought. In doing so we have also had in mind the fact that the tuition fee for a B.Sc.(Agric.) degree course at U.C.W. is about £60 per annum. This is little more than one-third of the average tuition fee charged today by the English agricultural colleges.

62. After much deliberation we have found ourselves unable to advocate that fees for Welsh students should be less than those payable by other students. We recommend that a uniform tuition fee equivalent to the average charged by the English colleges (at present this would be £160) should be payable by all agricultural students irrespective of origin. In coming to this conclusion we have had in mind the following considerations. In the first place, we see no reason in principle why Welsh students should be charged a lower fee. Secondly, we understand that it is generally recognised that University fees do not reflect as high a proportion of the full economic cost of tuition as some sub-degree educational establishments. Thirdly, parity with U.C.W.'s fees has less force now that the notion of formal affiliation of the College to the University has given way to a looser form of association. Fourthly, parity with fees at other agricultural colleges seems to us to have greater relevance than comparison with University fees. Finally, we should expect that the majority of Welsh students at the college would be in receipt of grants from their Local Education Authorities and would to that extent be unaffected by the level of fee charged.

63. *Meeting the cost.* On the assumption that the charge for board and lodging, with income from vacation lettings, would be enough, but no more than enough, to cover the cost of the hostel, the college's only other main source of income would be the tuition fee. With a uniform tuition fee of £160 per annum for agriculture and dairy diploma students the college's income from this source would be £12,800. There would, therefore, still be, on the basis of our estimate that running costs attributable to the diploma courses

would amount to £31,905, an annual deficit of £19,105 on these courses. Under the Seaborne Davies Committee's recommendations the Welsh L.E.A.s would make up the difference between annual income and expenditure by means of grants to the college which would, in turn, attract 60 per cent. grant from the Ministry. There may, however, be objections of principle to adopting such a method now that direct percentage grants from the Exchequer to L.E.A.s have in the main been superseded by the General Grant. In any case we think that a Welsh college should be treated broadly along the same lines as the English colleges. We recommend therefore that the Ministry of Agriculture should pay direct to the college grant towards the cost of the annual deficit.

64. We do not think, however, that the Ministry should be expected to cover in full the gap between income and expenditure. On our figures the deficiency would be 60 per cent. of the college's annual expenditure; this we understand is appreciably higher than the average percentage of expenditure covered by the grants to those English colleges which are aided. While we regard this as an important factor, we think there is a still more compelling reason why the Ministry should not alone bear the cost. Although certain of the English agricultural colleges have tended in recent years to receive an increasing amount of Exchequer support, they were not established by the State and they have sources of income other than students' fees and Ministry grants; (we understand that some of them receive grants paid on a purely voluntary basis by L.E.A.s in their neighbourhood). The capital costs and annual deficit on running costs of a Welsh college are, on the estimates we have made, substantial. As we have indicated, we accept the Seaborne Davies Committee's assessment of likely demand for diploma courses; but we feel that it would be unreasonable to expect the Exchequer alone to bear the risks, however small they may be, that may be involved in establishing a college. In our view there is everything to be said for Wales herself having a financial stake in the venture. We have considered various ways in which this might be done and we have concluded that the only practicable one would be for the Welsh L.E.A.s to make a contribution to the college representing 40 per cent. of the annual deficit, leaving the Ministry to make up the balance. This view is endorsed by the two representatives of the W.J.E.C. on the Working Party.

65. We have not thought it appropriate to attempt to work out a method of apportioning the L.E.A. contribution among Welsh authorities. This, as the W.J.E.C. representatives have indicated to us, is essentially a matter for the W.J.E.C. itself. Likewise we agree with them that the question whether L.E.A. contributions to the college should be treated as "relevant expenditure" under Section 2(1) of the Local Government Act, 1958, is one for the W.J.E.C. to pursue. We were glad to note that the W.J.E.C. representatives took the view that whether the contributions were so regarded or not should not affect the willingness of L.E.A.s to contribute to the college.

66. Under the proposals made above the Ministry's contribution to the college, assuming an annual deficit of £19,105 would be £11,463 and that of the Welsh L.E.A.s £7,642.

67. The amount to be contributed annually by the Ministry and Welsh L.E.A.s could be based either on the actual deficit incurred each year or on the deficiency expected to arise over a five-year period. In the latter case the arrangement would correspond to the quinquennial review used for the English

colleges, the main difference being that the Ministry, instead of paying a 100 per cent. grant towards the approved estimated deficiency, would pay 60 per cent. The importance of the college having a firm basis of financial support in the initial stages has persuaded us in favour of the former method for, say, the first five years of its life, at the end of which the quinquennial system might be adopted. We appreciate that during the first few years the College would in effect be on a "cost plus" basis and that therefore safeguards would have to be devised to ensure that it was run as economically as possible. We have in mind that the Ministry might reasonably require all expenditure above a specified level to be subject to their prior approval. The financial interests of the L.E.A.s should be adequately safeguarded by the presence of their representatives on the Governing Body (paragraph 77).

Forestry Course

68. The Forestry Commission have for many years provided and paid in full for the instruction they give at their forester training schools. With the exception of overseas students (for whom the Commission charge a fee based on the full cost of the course) the Commission receive no income by way of tuition or residence fee. We outline below proposals, formulated by the Commission, under which they would pay all the capital and running costs of providing a forestry course at the college. There would thus be no question of the Ministry of Agriculture or of Welsh L.E.A.s contributing towards any "loss" in running the forestry course.

69. *Capital costs.* There should be little difficulty in ascertaining the amount payable by the Commission where capital expenditure is incurred solely for the purpose of providing the forestry course. In this category there are first of all the teaching rooms used exclusively by the forestry department. As we have calculated the cost of the college's teaching and administrative buildings on the basis of cost per square foot, the Commission have proposed that their contribution should be assessed on the basis of the floor area needed exclusively for the forestry course. The forestry department would also require a "workshop" block on the college site consisting of carpentry and tool maintenance shops etc. We should expect this to be detached from the main block; it would no doubt be costed separately. The cost of these items (details of which are given in Appendix B) is estimated to be £54,950. This figure includes built-in furniture and equipment, but excludes movable items for, as we have said, the Commission would make use of equipment from existing resources.

70. Our assessment of the cost of building the hostel has been worked out on a per capita basis and the Commission have therefore suggested that they should contribute towards the capital cost on the basis of the number of forestry students for which provision is required (i.e. 50). They would thus be prepared to bear 50/130ths (5/13ths) of the total cost of the hostel. The same basis would apply to a number of other items which can be regarded as being shared jointly by the forestry department and diploma students, e.g. the cost of acquiring the site, the biology laboratory, the library, the Principal's room and administrative offices (details are given in Appendix F). It would also apply to the provision of furniture and equipment in these shared facilities as in the hostel. The Commission's contribution on the 5/13ths basis would amount to £65,140.

71. Thus the Commission's total share of the capital cost would, on our estimates, amount to £120,090, i.e. £54,950 (paragraph 69) plus £65,140 (paragraph 70).

72. *Annual running costs.* As stated in paragraph 15 the staff of the forestry department would be seconded from the Commission and would be paid direct by them. For this reason we have excluded this cost from our assessment of annual expenditure. Likewise, we have been advised by the Commission not to include in our estimate provision for the replacement of furniture and equipment used in those parts of the teaching block required exclusively for the forestry department. The Commission would cover such costs direct.

73. The costs incurred in running the hostel cannot be separated in this way and the Commission are prepared to contribute to the actual annual expenditure on a student-week basis. The longer terms worked by the forestry students would afford little opportunity for their part of the hostel to be let during vacations and the Commission have therefore suggested that their share of the hostel costs should be assessed on the gross cost, less any vacation receipts, apportioned on the basis of the number of student weeks. If, as is proposed here, the Commission bear their fair share of the actual cost of running the hostel we see no reason for revising our assumption that it should break even, taking one year with another.

74. The Commission would be prepared to bear 5/13ths of the salaries of the Principal, the administrative staff and the biology lecturer (from whom the forestry students would receive botany instruction). They would also be willing to cover a similar proportion of other costs incurred in the running of the teaching and administrative block, such as cleaning, repairs, maintenance, rates, lighting and heating. The Commission's contribution to these items would come to £5,765. When this amount is deducted from the estimated annual expenditure on running the college the costs remaining can reasonably be ascribed to the provision of the diploma courses alone (i.e. £31,905).

75. We regard the Commission's proposal for contributing to capital and annual expenditure as fair and reasonable. It is clear that to the extent that the Commission would contribute towards certain costs (e.g. the salary of the Principal) which would be incurred by a college whether there were a forestry department or not, their participation would help to keep down costs. The Commission itself, would, of course, also gain; but rather than attempt to draw up a balance sheet showing the different ways in which each would benefit, we prefer merely to emphasise that the association of a forestry department with the college should be mutually advantageous from the financial point of view.

ADMINISTRATION

76. The Seaborne Davies Committee recommended that the College should be administered by a Governing Body of fifteen persons of whom six would be representatives of the University of Wales, six of the Welsh Joint Education Committee and three independent members appointed by the Minister of Agriculture, Fisheries and Food (paragraph 176 of the Report).

77. We are broadly in agreement with this but recommend that the W.J.E.C. representation be increased to eight and that the Forestry Commission should nominate one member. This would give a Governing Body of eighteen. We also support the Committee's view that an assessor should be appointed from the Welsh Department of the Ministry and we recommend that in addition one should be appointed by the Forestry Commission. We assume that the majority of the University representatives would in practice be members of U.C.W.; in view of the interest of the University College of North Wales, Bangor, in forestry training, we hope that one of them would come from Bangor.

78. We agree with the Committee's recommendation that day-to-day business should be delegated to an Executive Committee drawn from the Governors. We think it should consist of three representatives of the W.J.E.C., two University representatives, one of the Minister's nominees and the Forestry Commission's representative. We envisage that the Governing Body would establish advisory and other committees as may be required.

79. We assume, with the Committee, that if it were agreed to establish a college on the lines we have suggested, the Minister of Agriculture would launch the Governing Body by inviting the organisations concerned to nominate their representatives. Their first task would presumably be to draft in consultation with the Ministry and the Forestry Commission an Instrument and Articles of Government for the Minister's approval providing for the constitution of the Governing Body, the general conduct of the college, financial control, disposal and use of capital assets*, the appointment of staff, etc. The Governing Body thus constituted would then proceed, in close concert with the Ministry and the Forestry Commission, with the physical establishment of the college.

80. We assume that one of the conditions the Ministry would impose if our recommendations for grant-aid are accepted is that the agricultural section of the college should be subject to periodic inspection by the Committee on the Agricultural Colleges.

CONCLUSION

81. In the course of our report we have referred to a number of changes that have occurred since the Seaborne Davies Committee reported which have necessitated our revising in this particular or that some of their detailed recommendations. This is not surprising. The passage of time since the report appeared is in itself enough to explain many of the differences to which we have drawn attention. Moreover, it was perhaps only to be expected that detailed study of the Committee's recommendations, with representatives of the bodies who would be intimately concerned if they were implemented, would bring to light the need for changes of one kind and another.

82. Attention will inevitably be attracted to the difference between our estimate of costs and that of the Committee. But it is important to compare like with like. We have explained why our assessment of the type of provision

* Under this head would be included any conditions which the Ministry and Forestry Commission might wish to impose to safeguard their interests.

which would be required differs from that of the Committee and why, in consequence, our estimates contain a number of items which the Committee had no reason to include. If these are excluded the difference is far less marked. In this connection it is not perhaps out of place to point out that on our estimates a college at Aberystwyth, excluding the cost of the hostel, would cost no more than many a county secondary school established in Wales during the last few years.

83. We feel it worth recording that we have been struck throughout our deliberations by the enthusiasm for the project shown by those bodies who would have a vital part to play in its success. As our report indicates, this support, far from being of a token nature, takes a tangible and substantial form. The University authorities are prepared to play their part in giving a college at Aberystwyth what would be, for an agricultural college, a unique association with a university. The W.J.E.C. representatives are prepared to recommend that Welsh L.E.A.s should make a reasonable contribution to the annual running costs. And the Forestry Commission are prepared to join forces with a college in what can fairly be described as a unique and imaginative association from which rich dividends could come in the future. We have endeavoured to show how the various expressions of interest and support, which came into focus during our deliberations, could be brought together in a joint venture embracing central government, local authorities and the University of Wales. We submit our conclusions and recommendations, which are unanimous, in the belief that they would constitute a workable basis for establishing an agricultural college at Aberystwyth.

84. We wish to record our sincere thanks to our Secretary, Mr. F. R. Stokes, and to Mr. L. A. Hobgen, who, until October, 1959, acted as our Assistant Secretary, for the willing and able way in which they have served us. The experience gained by Mr. Stokes in his work for the Seaborne Davies Committee has been of great value to us.

SUMMARY OF MAIN CONCLUSIONS AND RECOMMENDATIONS

General

(i) While formal affiliation to the University of Wales is impracticable, the looser form of association with the University and the University College of Wales, Aberystwyth, which has been suggested would bring with it most of the advantages of affiliation (paragraphs 7-8).

(ii) The participation of the Welsh Local Education Authorities through the Welsh Joint Education Committee is vital to the successful establishment and running of a Welsh college (paragraphs 10 and 64).

Provision of courses

(iii) The college should cater for an annual intake of twenty dairy diploma students (paragraph 33) and twenty agriculture diploma students (paragraph 35).

(iv) The college should have its own department of forestry catering for an annual intake of twenty-five students, staffed with officers seconded from the Forestry Commission and providing a two-year certificate course in accordance with a syllabus approved by the Commission (paragraphs 21 and 37).

(v) Close association between diploma and forestry certificate students would make for better understanding between agriculture and forestry and would thereby help to promote greater co-operation and integration in Wales (paragraph 12).

Facilities required

(vi) The college should have its own farm (paragraphs 23-25), dairy department (paragraph 28) and hostel (paragraph 41).

Location

(vii) The college's main block should be sited as near as possible to U.C.W. even if, as seems most likely, this means that the farm would be some distance from the college (paragraph 31).

(viii) The dairy department and the workshop and demonstration rooms for farm machinery etc. should be sited on the farm (paragraph 46).

Costs

(ix) The capital cost of the college on the new basis proposed is estimated at £343,260 of which £223,170 is attributable to the provision of diploma courses and £120,090 to the provision of the forestry course (paragraph 38).

(x) The annual running cost of the college is estimated at £37,670 of which £31,905 is attributable to the provision of diploma courses and £5,765 to the provision of the forestry course (paragraph 38). In addition the Forestry Commission would incur direct expenditure on salaries of forestry instructors and on replacement of certain furniture and equipment (paragraph 72).

(xi) The farm (paragraph 27) and the hostel (paragraphs 53 and 73) can be expected to be self-supporting.

Meeting the cost

(xii) A tuition fee of £160 should be charged to all diploma students irrespective of origin (paragraph 62).

(xiii) The Ministry of Agriculture should defray the capital cost arising from the provision of diploma courses (paragraph 57).

(xiv) The Ministry of Agriculture should bear 60 per cent. and the Welsh L.E.A.s 40 per cent. of the difference between the college's annual income and expenditure on providing diploma courses (paragraphs 64-66).

(xv) The Forestry Commission should pay in full the capital and running costs of providing the forestry course (paragraph 68), shared facilities being apportioned generally on the basis of the number of forestry students for which provision has been made (paragraphs 70, 73-74).

Governing Body

(xvi) The college should be administered by a Governing Body of 18 persons—6 nominated by the University of Wales, 8 by the W.J.E.C., 3 by the Minister of Agriculture, and 1 by the Forestry Commission. They should be assisted by an assessor from the Ministry and one from the Forestry Commission (paragraph 77).

(xvii) Day-to-day business should be delegated to an Executive Committee of 7 Governors—3 W.J.E.C., 2 University, 1 Ministry of Agriculture, and 1 Forestry Commission (paragraph 78).

(Signed) J. MORGAN JONES (*Chairman*).
J. H. JAMES.
DAVID LEWIS.
T. J. MORGAN.
P. PARKHOUSE.
THOMAS PARRY.
R. PHILLIPS.
PHILIP SQUIRE.
G. F. TAYLOR.

F. R. STOKES (*Secretary*).
April, 1960.

SUMMARY OF COSTS

	Total Costs	Cost attributable to	
		Diploma Courses	Forestry Course
Capital Costs	£	£	£
Teaching accommodation (Details in Appendix B)—			
Building	137,260	75,110	62,150
Furniture and equipment	19,000	17,600	1,400*
Hostel (Details in Appendix D)—			
Building	130,000	80,000	50,000
Furniture and equipment	16,000	9,845	6,155
Principal's house	5,000	5,000	—
College site	1,000	615	385
Farm: 150–200 acres including new buildings, live and dead stock and working capital	35,000	35,000	—
Total Capital Cost	343,260	223,170	120,090

Annual Running Costs (Details in Appendix C)

Staff salaries and superannuation ...	25,720	23,045	2,675*
Other running costs	11,950	8,860	3,090*
Total Annual Running Cost ...	37,670	31,905	5,765

* Excluding costs paid direct by the Forestry Commission (e.g. provision and replacement of certain furniture, salary of staff of forestry department).

CAPITAL COST OF
TEACHING ACCOMMODATION

College Teaching Unit	Area sq. ft.	Building Cost ¹	Cost of Furniture and Equipment ²		
<i>Science Department</i>					
<i>Laboratories—</i>					
Biology ³	960	£47,850	£8,700		
Microbiology	960				
Chemistry	960				
3 Staff laboratories	720				
3 Stores	360				
<i>Husbandry Department</i>					
2 Staff rooms	480	£47,850	£8,700		
<i>Other Accommodation</i>					
2 Lecture rooms (for diploma courses) ⁴	1,200				
Library	720				
Principal's room ³	240				
Staff common room ³	600	£21,150	— ⁵		
2 Administration rooms ³	480				
<i>Forestry Department</i>					
2 Lecture rooms (one for use also as projection theatre) ⁴	1,500			£21,150	— ⁵
Offices for Head of Department and Instructors	900				
Staff library	500				
Staff common room/waiting room ...	500				
<i>Carpentry and edge tool maintenance</i>					
shop	950	£33,800	— ⁵		
Tool store and tool locker room ...	3,000				
Saw maintenance shop	1,000				
Seed store and seed extraction plant...	1,000				
Implement store	500				
Garages for lorry and light vehicles...	1,200				
General technical and stationery store- rooms	800				

Farm Teaching Unit				Area sq. ft.	Building Cost ¹	Cost of Furniture and Equipment ²
<i>Dairy Department</i> (Details in Appendix G)						
Milk receiving	250	£18,600	£7,500
Processing ...	...	...	...	650
Dairy products ...	...	...	...	950
Cheese pressing ...	...	...	...	200
Cheese store ...	...	...	...	350
Washing and sterilising ...	...	...	...	200
Farm dairy and testing ...	...	...	...	950
Records office ...	...	...	...	240
General store ...	...	...	...	240
2 Staff rooms	480		
<i>Farm Work and Equipment</i> (Details in Appendix H)						
Machinery display	750	£11,880	£2,000 ⁴
Equipment display ...	...	...	...	750
Demonstration room ...	...	...	...	500
Field surveying room ...	...	...	...	400
2 Staff rooms ...	...	...	...	480
<i>Other Accommodation</i>						
Staff room	240	£3,980	£800
Student common room ...	...	...	...	720
Total costs		£137,260	£19,000

¹ The building costs of the College Teaching Unit have been based on the Ministry of Education's Building Bulletin No. 5 (September, 1959, edition) and include allowances for circulation (corridors, cloakrooms, etc.), for site costs and for up to 5s. of the cost per square foot to be spent on built-in furniture. The Farm Teaching Unit would be of farm building construction and has therefore been assessed at a lower figure suggested by the Ministry's Farm Buildings Advisory Officer (Wales).

² Movable furniture and equipment only.

³ Used jointly for purposes of diploma and forestry courses.

⁴ Convertible by means of removable partition into one room which could be used for special purposes.

⁵ For this accommodation the existing furniture and equipment would be transferred from existing Forestry Commission resources.

⁶ It is assumed that most of this equipment could be borrowed for, say, three to six months at a time from various manufacturers.

ANNUAL RUNNING COSTS¹

	Total Costs	Costs attributable to	
		Diploma Courses	Forestry Course
	£	£	£
Staff salaries and superannuation ... (Appendix E)	25,720	23,045	2,675 ⁴
Materials and replacements of laboratories	3,000	2,615	385 ⁵
Rates, repairs, insurance and management	2,500	1,540	960
Replacement of furniture and equipment ²	1,900	1,770	130 ⁶
Heating and lighting	1,700	1,045	655
Cleaning (wages and materials)	1,400	860	540
Office stationery, telephones, etc....	350	215	135
Contingencies ³	1,100	815	285
Totals ⁷	£37,670	£31,905	£5,765

¹ It is assumed that the hostel (see paragraphs 53 and 73) and the farm (see paragraph 27) would break even.

² Furniture and equipment used solely for forestry courses would be the direct responsibility of the Forestry Commission and no allowance has been made for replacement here.

³ 10 per cent. of running costs, exclusive of staff salaries.

⁴ Contribution towards salaries of Principal, biology lecturer and administrative staff only. (Salaries of forestry department staff would be paid by Forestry Commission direct.)

⁵ Contribution in respect of use of biology laboratory only.

⁶ Contribution in respect of shared furniture and equipment only. The cost of replacing such items used solely by the forestry department would be paid direct by the Forestry Commission.

⁷ No allowance has been made for depreciation since it is assumed that replacements and improvements of capital assets would be paid for by the Exchequer.

HOSTEL¹

	Total Costs		Costs attributable to	
			Diploma Students	Forestry Students
Capital Costs	£	£	£	£
Building at £1,000 per student ² ...		130,000	80,000	50,000
Furniture and equipment—				
130 study-bedrooms at £75 each ³	9,750			
Common rooms at 15s. per sq. ft.	1,500			
Recreation rooms ...	450			
Kitchens at £20 per person ...	3,000			
Dining room at £5 per person ...	750			
Corridors, cloakrooms, etc. ...	400			
Warden's flat ...	150	16,000	9,845	6,155
Totals ...		£146,000	£89,845	£56,155

Annual Running Cost

No analysis of hostel running costs is included as it has been assumed that receipts, residence fees, vacation lettings and the Forestry Commission's contribution would cover expenditure (see paragraphs 53 and 73).

¹ Costs have been estimated on the basis of the Ministry of Education's experience with Colleges of Further Education.

² Includes study-bedrooms for 130 students, dining facilities for 150, common rooms, warden's accommodation, etc.

³ Up to £25 worth of built-in furniture provided out of the building cost.

STAFF REQUIREMENTS AND SALARIES

Teaching Staff	Number of Staff	Annual Cost	
		£	£
Principal ¹	1	2,500 ²	
Dairying	2		
Microbiology	4	4 Senior Lecturers	
Chemistry		at £1,650 ...	6,600
Biology ¹		4 Lecturers at	
Crop Husbandry		£1,460 ...	5,840
Animal Husbandry	2	2 Asst. Lecturers at	
Farm Machinery and	2	£900 ...	1,800
Equipment			
Economics and			
Accounts	Part-time	At £2 2s. 0d. per hr.	250
Animal Health	Part-time	At £2 2s. 0d. per hr.	125
Forestry ³	5		— ³
			17,115
<i>Assistant Staff</i>			
Science	{ 3 Tech. Assts.		1,500
			1,050
Husbandry	2 Tech. Assts.		1,000
Dairying	1 Tech. Asst.		500
Farm Work and			
Equipment	1 Fitter		500
			4,550
<i>Administrative Staff</i>			
Secretary/Bursar ¹ ...	1		1,200
Clerk/Typist ¹ ...	1		500
Shorthand/Typist ¹ ...	1		450
Caretaker ¹	1		450
			2,600
		Total Staff Salaries ...	24,265
		Superannuation ...	1,455
		Total	£25,720

¹ Salaries of these members of the staff would be borne partly by Forestry Commission.² It is assumed that the Principal would be charged a reasonable rent for his house.³ Paid direct by Forestry Commission at appropriate Commission rates.

COSTS TO BE BORNE BY FORESTRY COMMISSION

Capital Costs

			<i>Basis of Calculation</i>	<i>Buildings £</i>	<i>Furniture and Equipment £</i>
<i>Teaching Accommodation</i> (Appendix B)					
Forestry Department ...	...	...	100 %	54,950	— ¹
Biology laboratory ...	...	...	50/130ths	7,200	1,400
Library ...	...	...	
Principal's room ...	...	...	
2 Administration rooms ...	...	...	50/130ths	50,000	6,155
<i>Hostel</i> (Appendix D) ...	...	...	50/130ths	385	—
<i>Site</i> ...	...	...	...	...	...
Total Capital Costs ...	...	...	...	£112,535	£7,555

Annual Running Costs²

			<i>Basis of Calculation</i>	<i>Cost £</i>
Salaries and superannuation of Principal, biology lecturer and administrative staff (Appendix E) ...	...	...	50/130ths	2,675
Other running costs (Appendix C) ...	...	...	50/130ths	3,090
Contribution towards college's annual running costs ...	...	...	...	£5,765 ³

¹ No figure is given for movable furniture and equipment, which it is assumed would be transferred from existing Forestry Commission resources. (The figure of £54,950—"buildings"—includes provision for built-in furniture.)

² Excluding costs paid direct by Forestry Commission (e.g. salaries of forestry department staff).

³ This does not include the contribution which the Forestry Commission would make towards the hostel running costs (paragraph 73).

DAIRY DEPARTMENT

The following table outlines the main accommodation required and the principal items of equipment.

Room	Area sq. ft.	Equipment Installed	Purpose
Milk Receiving	250	Milk weigher. By-products tank. Churn cleaning equipment. Supply of milk churns.	Reception of farm and creamery milk. Milk storage. Churn washing and sterilising. By-products disposal.
Processing ...	650	Milk tank and pump. Pasteuriser. Cream separator. Cream vats. Cheese starter equipment.	Milk pasteurising and cooling. Cream separating storage. Skim milk treatment. Preparation of starter for cheese making.
Dairy Products	950	Cheese vats. Curd cooler and curd mill. Butter churns. Butterworkers. Clotted cream scalders. Ice cream freezer. Cold store.	Production of different types and varieties of cheese. Butter production. Production of clotted cream and ice cream. Storage of butter and soft cheese pending marketing. Ice cream making. Refrigeration facilities for milk treatment and processing.
Cheese Pressing	200	Double chamber presses. Cheese turning table. Moulds, racks and followers.	Pressing, turning and dressing of cheese. Storage of cheese moulds and moulding equipment.
Cheese Store ...	350	Cheese stillages. Bandaging and dressing equipment. Weighing facilities.	After press treatment of cheese and storage up to time of marketing.

Room	Area sq. ft.	Equipment Installed	Purpose
Washing Up ...	200	Steam chest. Hot water tank. Wash troughs. Airing cupboard.	Central point for washing and sterilising of all milk handling equipment, cheese cloths, etc.
Farm Dairy and Equipment Testing.	950	Representative collection of types and makes of— (a) milking machines; (b) steam raisers; (c) water heaters; (d) refrigerated coolers; (e) ordinary water coolers; (f) small dairy utensils.	Farm dairy. Instruction in working principles of various dairy machines and investigations into various aspects of their use.

FARM WORK AND EQUIPMENT

Demonstration Rooms

Room	Area sq. ft.	Equipment and Purpose
Machinery Display ...	750	<p>Display of models of pumps, milking machine equipment, spraying machines, fans and burners for crop drying, grain handling equipment, ploughing and cultivating equipment, transport machines, hammer mills, etc.*</p> <p>Wall charts, diagrams and instruction sheets produced by machine manufacturers.</p>
Building Display ...	750	<p>Display of building materials, models of roofs and floors showing insulation, drainage layouts, models of farms and farm buildings. Plans, diagrams and charts showing up-to-date ideas of farm planning. Experimental work on building materials used in agriculture; methods of construction.</p>
Demonstration ...	500	<p>Demonstration of machines, e.g. tractors, balers, combine harvesters and livestock and demonstrations of farm planning. Hydraulic lift should be installed and seating provided for 20 students.</p>
Field Surveying ...	400	<p>Field surveying equipment, measuring chains, Dumpy levels, ranging rods, etc., for instruction in surveying and levelling as applied to agriculture.</p>

*All this equipment could probably be borrowed for, say, three to six months at a time from various manufacturers and could be changed at seasonal intervals or according to the term curricula.